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2 October 2003
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: AQUEOUS HERBICIDAL CONCENTRATE COMPRISING A BETAINES TYPE SURFACTANT

(57) Abstract: The present invention concerns an aqueous phytopathological formulation comprising a hydrosoluble salt of at least one aminophosphate or aminophosphonate type herbicide; at least one principal surfactant selected from alkylbetaines and alkyl(ami-doalkyl)betaines, and at least one additive selected from at least one of the following compounds: (i) amines or etheramines comprising at least one hydrocarbon radical containing 2 to 24 carbon atoms, optionally polyalkoxylated; (ii) acid or non acid phosphate mono- or di-esters, optionally polyalkoxylated; (iii) alkali metal, alkaline-earth metal, ammonium, alkylammonium, alkanolammonium, iron, zinc or manganese salts of a mineral acid; and (iv) alkylmonoglycosides or alkylpolyglycosides.

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/00825

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 A01N57/20

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

WPI Data, EPO-Internal, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 00 38523 A (ALBRIGHT & WILSON UK LIMITED) 6 July 2000 (2000-07-06) page 2, line 12 -page 4, line 6 examples 1-103 -----	1-15

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

25 March 2003

Date of mailing of the international search report

30.05.03

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/00825

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5(part), 6-7, 14-15(part)

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-5 (partially), 6-7, 14-15 (partially)

An aqueous phytopathological formulation comprising:  
-a hydrosoluble salt of at least one aminophosphate or aminophosphate type herbicide  
-at least one principal surfactant selected from alkylbetaines and alkyl(amidoalkyl)betaines  
-at least one (i) amine or etheramine comprising at least one hydrocarbon radical containing 2 to 24 carbon atoms, optionally polyalkoxylated

2. Claims: 1-5 (partially), 8-9, 14-15 (partially)

An aqueous phytopathological formulation comprising:  
-a hydrosoluble salt of at least one aminophosphate or aminophosphate type herbicide  
-at least one principal surfactant selected from alkylbetaines and alkyl(amidoalkyl)betaines  
-at least one (ii) acid or non-acid phosphate mono- or di-ester, optionally polyalkoxylated

3. Claims: 1-5 (partially), 10-11, 14-15 (partially)

An aqueous phytopathological formulation comprising:  
-a hydrosoluble salt of at least one aminophosphate or aminophosphate type herbicide  
-at least one principal surfactant selected from alkylbetaines and alkyl(amidoalkyl)betaines  
-at least one (iii) alkali metal, alkaline-earth metal, ammonium, alkylammonium, alkanolammonium, iron, zinc or manganese salts of a mineral acid

4. Claims: 1-5 (partially), 12-13, 14-15 (partially)

An aqueous phytopathological formulation comprising:  
-a hydrosoluble salt of at least one aminophosphate or aminophosphate type herbicide  
-at least one principal surfactant selected from alkylbetaines and alkyl(amidoalkyl)betaines  
-at least one (iv) alkylmonoglycoside or alkylpolyglycoside

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/00825

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0038523	A	06-07-2000	
		AU 2284900 A	31-07-2000
		CA 2369572 A1	06-07-2000
		WO 0038523 A1	06-07-2000
		EP 1139761 A1	10-10-2001
		JP 2002533361 T	08-10-2002
		US 6500784 B1	31-12-2002